What Is Claimed Is:

1. A gaseous flow sensor comprising:

a substrate formed of an electrically insulating material;

a reference resistor formed on said substrate and disposed in said gaseous flow at an ambient temperature without heating;

a flow-sensing resistor formed on said substrate and disposed in said gaseous flow heated to a temperature higher than said ambient temperature, wherein said reference resistor and said flow-sensing resistor are formed of a non-platinum resistive material; and

an electrical circuit in electrical communication with said reference resistor and said flow-sensing resistor.

2. A gaseous flow sensor according to claim 1, wherein said non-platinum resistive material comprises an oxide composition of Pb, Ru, Si and Bi.

3. A gaseous flow sensor according to claim 1, wherein said reference resistor has an electrical resistance at least 15 times the electrical resistance of said flow-sensing resistor.

4. A gaseous flow sensor according to claim 1, wherein said reference resistor and said flow-sensing resistor each has a thickness between about 2 μm and about 30 μm.

5. A gaseous flow sensor according to claim 1, wherein said reference resistor and said flow-sensing resistor each has a thickness preferably between about 5 μm and about 20 μm.

6. A gaseous flow sensor according to claim 1, wherein said reference resistor is formed in a serpentine configuration.

7. A gaseous flow sensor according to claim 1, wherein said reference resistor is formed in a serpentine configuration having vertical portions connected by horizontal portions with an aspect ratio of length/width of the resistor being at least 2.

8. A gaseous flow sensor according to claim 1, wherein said electrical circuit maintains a target temperature differential between said reference resistor and said flow-sensing resistor by controlling an electrical current flowing to said flow-sensing resistor.

9. A gaseous flow sensor according to claim 1, wherein said reference resistor is formed in a spiral configuration.

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10. A gaseous flow sensor comprising:

a substrate formed of an electrically insulating material;

a reference resistor formed on said substrate and disposed in said gaseous flow at an ambient temperature without heating;

a flow-sensing resistor formed on said substrate and disposed in said gaseous flow heated to a temperature higher than said ambient temperature, wherein said reference resistor and said flow-sensing resistor both are formed of a single non-platinum resistive material; and

an electrical circuit in electrical communication with said reference resistor and said flow-sensing resistor.

~~11.~~ An airflow meter comprising:

an insulating substrate;

a first resistor formed on said insulating substrate having a first resistance, said first resistor being maintained at ambient temperature;

a second resistor formed on said insulating substrate having a second resistance, said second resistor being maintained at a temperature higher than said ambient temperature, said first resistance being at least 15 times the value of said second resistance; and

an electrical circuit for comparing said second resistance to said first resistance.

12. An airflow meter according to claim 10, wherein said insulating substrate is formed of a ceramic material.

13. An airflow meter according to claim 10, wherein said first resistor is formed in a serpentine configuration.

14. An airflow meter according to claim 10, wherein said first resistor being formed in a serpentine configuration having an aspect ratio (length/width of resistor) of at least 2.

15. An airflow meter according to claim 10, wherein said first and second resistors are formed with a thickness between about 2 μm and about 30 μm.

16. An airflow meter according to claim 10, wherein said first and second resistors are formed of a non-platinum containing resistive material.

17. A method for fabricating a gaseous flow sensor comprising the steps of:

thick film printing a reference resistor from a non-platinum containing paste;

thick film printing a flow-sensing resistor from a non-platinum containing paste;

forming a circuit for providing electrical communication between said reference resistor and said flow-sensing resistor and for determining a differential resistance therein between.

18. A method for fabricating a gaseous flow sensor according to claim 17 further comprising the step of forming said reference resistor and said flow-sensing resistor in the same thick film printing process.

19. A method for fabricating a gaseous flow sensor according to claim 17 further comprising the step of forming said reference resistor with a resistance that is at least 15 times the resistance of said flow-sensing resistor.

20. A method for fabricating a gaseous flow sensor according to claim 17 further comprising the step of thick film printing said reference resistor and said flow-sensing resistor to a thickness between about 4 μm and about 50 μm.

21. A method for fabricating a gaseous flow sensor according to claim 17 further comprising the step of firing said reference resistor and said flow-sensing resistor after said thick film printing step.